



OPERATING PERMIT Issued Pursuant to Tennessee Air Quality Act

Date Issued: December 17, 2015

Permit Number:
071112P

Date Expires: May 1, 2025

Issued To:
Tennessee Valley Authority (TVA) – Newcastle Microwave Station

Installation Address:
4745 Sommerville Road
Whiteville

Installation Description:
One (1) new 43.5-hp propane-powered emergency generator
engine set

Emission Source Reference No.
35-0107-01
NSPS 40 CFR 60 Subpart JJJJ
NESHAP, 40 CFR 60 Subpart ZZZZ

The holder of this permit shall comply with the conditions contained in this permit as well as all applicable provisions of the Tennessee Air Pollution Control Regulations.

CONDITIONS:

1. The application that was utilized in the preparation of this permit is dated December 2, 2015, and is signed by Billy R. Hall, Jr., General Manager, Telecom, for the permitted facility. If this person terminates employment or is reassigned different duties and is no longer the responsible person to represent and bind the facility in environmental permitting affairs, the owner or operator of this air contaminant source shall notify the Technical Secretary of the change. Said notification shall be in writing and submitted within thirty (30) days of the change. The notification shall include the name and title of the new person assigned by the source owner or operator to represent and bind the facility in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the facility until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

TAPCR 1200-03-09-.03(8)

(conditions continued on next page)


TECHNICAL SECRETARY

No Authority is Granted by this Permit to Operate, Construct, or Maintain any Installation in Violation of any Law, Statute, Code, Ordinance, Rule, or Regulation of the State of Tennessee or any of its Political Subdivisions.

NON-TRANSFERABLE

POST AT INSTALLATION ADDRESS

2. The stated design power output capacity for this internal combustion engine (Cummins Model Number QSJ2.4) is 43.5 horsepower. Any increase in this capacity will require a construction permit.

TAPCR 1200-03-09-.01(1)(d) and construction permit 970315P

3. Only propane shall be used as fuel for this source.

TAPCR 1200-03-09-.01(1)(d) and construction permit 970315P

4. Particulate Matter (TSP) emitted from this source shall not exceed 0.6 pound per million Btu (lb/MMBtu) (0.16 pound per hour). Compliance with this emission limit shall be assured by compliance with **Conditions 2 and 3** of this permit.

TAPCR 1200-03-06-.02(2)

5. Carbon Monoxide (CO) emitted from this source shall not exceed 387 grams per horsepower-hour (37.11 lb/hr). The permittee must operate and maintain the emergency engine to achieve this emission standard over the entire life of the emergency engine. Compliance with this emission limit is based on compliance with **Conditions 2, 3, and 8** of this permit.

TAPCR 1200-03-09-.03(8) and 40 CFR 60 Subpart JJJJ - §§60.4233(c), 60.4231(c), & 60.4234

6. Hydrocarbons and Nitrogen Oxides (HC + NO_x) emitted from this source shall not exceed 10 grams per horsepower-hour (0.96 lb/hr). The permittee must operate and maintain the emergency engine to achieve this emission standard over the entire life of the emergency engine. Compliance with this emission limit is based on compliance with **Conditions 2, 3, and 8** of this permit.

TAPCR 1200-03-09-.03(8) and 40 CFR 60 Subpart JJJJ - §§60.4233(c), 60.4231(c), & 60.4234

7. The emergency engine shall be equipped with a non-resettable hour meter.

TAPCR 1200-03-09-.03(8) and 40 CFR 60 Subpart JJJJ - §60.4237(c)

8. If the permittee operates and maintains the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the permittee must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. The permittee must also meet the applicable requirements as specified in 40 CFR part 1068, subparts A through D. If the permittee adjusts engine settings according to and consistent with the manufacturer's instructions, the permittee's stationary SI internal combustion engine will not be considered out of compliance.

or

If the permittee does not operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, the permittee's engine will be considered a non-certified engine, and the permittee must demonstrate compliance by keeping a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, but no performance testing is required.

TAPCR 1200-03-09-.03(8) and 40 CFR 60 Subpart JJJJ -§60.4243(a)(1) and (2)

9. The permittee must operate the emergency stationary ICE according to the requirements in paragraphs (a) through (c) of this condition. In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (a) through (c) of this condition, is prohibited. If the permittee does not operate the engine according to the requirements in paragraphs (a) through (c) of this condition, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(a) There is no time limit on the use of emergency stationary ICE in emergency situations.

(b) The permittee may operate the emergency stationary ICE for any combination of the purposes specified in paragraphs (1) through (3) below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (c) of this condition counts as part of the 100 hours per calendar year allowed by this paragraph.

(1) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

(2) Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(3) Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(c) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (b)(2) of this condition. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

TAPCR 1200-03-09-.03(8) and 40 CFR 60 Subpart JJJJ -§60.4243(d)(1) through (3)

10. The permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for the following categories: (1) emergency operation, as specified in **Condition 9**, Paragraph (a), including what classified the operation as emergency; (2) maintenance checks and readiness testing, demand response, as specified in **Condition 9**, Paragraph (b); and (3) non-emergency operation, as specified in **Condition 9**, Paragraph (c). The permittee shall calculate the operating hours per calendar year. The permittee shall maintain the following log format or an alternative format which readily provides the same required information. All data, including all required calculations, must be entered in the log no later than thirty (30) days from the end of the year for which the data is required. This log shall be retained for a period of not less than two (2) years and shall be made available for inspection by the Technical Secretary or his representative upon request.

Logs for emergency stationary ICE

Month, Year	Emergency Operation (hr/mon)	Maintenance Checks and Readiness Testing (hr/mon)	Non-Emergency Operation (hr/mon)	Comment**
	Column A	Column B	Column C	
January				
February				
Etc.				
December				

** Including nature of emergency usage.

Month, Year	Add Columns B+C	Add Column C
Limit	100 hours	50 Hours
January		
February		
Etc.		
December		

TAPCR 1200-03-10-.02(2)(a)

11. Under the Provisions of 40 CFR 63 Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE), this facility is considered to be “new” stationary RICE located at an “Area Source.” This unit is considered to be new because its construction commenced on or after June 12, 2006. §63.6590(a)(2)(iii)

§63.6590(c) states that a new or reconstructed stationary RICE located at an area source must meet the requirements of this part by meeting the requirements of 40 CFR Part 60 Subpart JJJJ, for stationary spark ignition internal combustion engines. No further requirements apply for such engines under Subpart ZZZZ.

TAPCR 1200-03-09-.03(8) and 40 CFR 63 Subpart ZZZZ - §63.6590

12. Visible emissions from this source shall not exhibit greater than twenty percent (20%) opacity except for one six-minute period per one (1) hour or more than twenty four (24) minutes in any twenty four (24) hours. Visible emissions from this source shall be determined by EPA Method 9, as published in the current 40 CFR 60, Appendix A (six-minute average).

TAPCR 1200-03-05-.01(1) and TAPCR 1200-03-05-.03(6)

13. This permit is valid only at this location. TAPCR 1200-03-09-.03(6)
14. This source shall comply with all applicable state and federal air pollution regulations. This includes, but is not limited to, federal regulations published under 40 CFR 63 for sources of hazardous air pollutants and 40 CFR 60, New Source Performance Standards.

TAPCR 1200-03-09-.03(8)

15. This source shall operate in accordance with the terms of this permit and the information submitted in the approved permit application.

TAPCR 1200-03-09-.01(1)(d) and construction permit 970315P

16. The permittee shall apply for renewal of this permit not less than sixty (60) days prior to the permit's expiration date pursuant to Division Rule 1200-03-09-.02(3).

(end of conditions)

The permit application gives the location of this source as Latitude: 35.202° and Longitude: -89.18°